

REMARKS

Claims 1-3, 5-12 and 14-22 are pending. By this Amendment, claims 5 and 14 are amended.

Applicants appreciate the Office Action's indication that claims 1-3 and 10-12 are allowed.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

I. The Office Action rejects claims 5, 6, 8, 9, 14, 15, and 17-22 under 35 U.S.C. §102(b) over USP 6,276,317 to Yoeda et al. This rejection is respectfully traversed.

With respect to claims 5-9 and 14-18, Yoeda does not control the current to the valve so as to suppress the free oscillation of the valve when the engine is to be stopped. See, e.g., Figure 3 and Figure 4 of Yoeda. In Yoeda when the ignition is turned off (t_0) (i.e., when the engine is to be stopped), the intake valves in cylinders #2 to #4, which are in the fully closed position at this time, are retained in the same positions (fully closed positions) by controlling the current to each of them. The application of current to the exhaust valves in cylinders #2 to #4 is stopped, after which each exhaust valve oscillates up and down until the oscillation ends in time. Thus, the current to each exhaust valve is immediately shut off when the engine is to be stopped. However, the intake valve in cylinder #1 is not in the fully closed position when the engine is turned off (t_0), so this intake valve is retained in the fully closed position when it reaches the fully closed position in the next cycle. Thus, Yoeda controls the current

to the intake valves so that they are retained in the fully closed positions for a while when the engine is to be stopped. However, this valve current control of Yoeda is different from that of independent claims 5 and 14 where when the internal combustion engine is to be stopped, the current to the valve (i.e., magnet) is controlled so as to move the valve toward the middle position before shutting off the same current, so that free oscillation of the valve is suppressed. See, e.g., specification at Figures 7 and 8.

With respect to claims 19 and 22, and 20 and 21, Yoeda does not stop application of current at a first timing and at a second timing that is a predetermined time later from the first timing or at a predetermined time which is the time needed for a free oscillation of the first valve to decay to a specific level.

In Yoeda when the ignition switch 57 is operated from the ON state to the OFF state, the fuel injection by the fuel injection valves 32 and the fuel ignition by the ignition plug 28 are stopped. If it is determined that the intake valves 66 are in the completely closed state, the ECU 10 continues the supply of exciting current to the first electromagnetic coils 90 to maintain the completely closed state of the intake valves 66. Each intake valve 66 is brought into the completely closed state by discontinuing the exciting current supplied to the second electromagnetic coil 94 and supplying an appropriate exciting current to the first electromagnetic coil 90 at a time point when the amount of displacement of the armature 88 reaches the predetermined value. See, e.g., column 9, lines 21-65. Figure 4 is merely a timing chart illustrating an example of displacements of intake valves 66 and exhaust valves 68 where the above described routine takes place. See, e.g., column 10, line 41 *et seq.* The difference in timing shown in Figure 4 is merely representative of the different positions of the cylinders at a given period of time. It does not represent control based on a predetermined time, as in the invention of claims 19-22.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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